

Troubleshooting:

No.	Symptoms	Troubleshooting steps	Process
1	No light at night	Check that the lamp can be manually activated.	Refer to "Activation and Installation" section on this user guide and run activation tests.
		Check if the solar panel is blocked from the sunlight by houses, trees and other obstacles.	Clear obstructions or change installation location.
		Check if there is any artificial light source(s) shining on the solar panel during the night.	Remove the artificial light source(s) of interference or change the installation location.
		Examine status of each component based on the maintenance guide.	Replace the damaged component(s).
2	A serious shortage of working time	Check if the solar panel is blocked from the sunlight by houses, trees and other obstacles.	Clear obstructions or change installation location.
		Check if the surface of the solar panel is dusty or covered.	Clean the surface of solar panels as detailed above.
		Examine if the battery pack is damaged as per the maintenance guide.	Replace damaged battery.
3	Lighting does not follow the normal operating mode of turning on and off		Reprogram.
4	Lights fail to turn on properly when humans approach	Check if the air temperature close to human body temperature.	When the air temperature is close to human temperature, motion detection may slow down. It will return to normal after the air temperature changes.
		Check if the installation height is too high.	It is out of motion detection range when installation height exceeds 8m. It is recommended to reduce the height or use other operating modes.
			Replace damaged motion sensor or controllers.



X4 Solar Street Light User Manual

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Thank you for choosing PBOX's solar street light.

If you have any question, please consult our customer services sales@pboxlighting.com.

PBOX reserves the right to update product appearance, function and construction without notice.



! Precaution

Before using the X4 solar street light, carefully read the follow precautions to avoid damage or error.

Operation Conditions & Limits

- This product is rated as IP66 protection grade.
- The operating temperature range is from -20°C to 60°C and the charging temperature limit is within 0°C to 51°C.
- The heavy-duty structure will survive up to a Category 12 typhoon or cyclone. (Storms above Category 12 may cause damages to the product).

Transportation & Storage

- This product contains lithium batteries. Please follow air transport regulations when shipping. It should be regarded as potentially flammable and explosive, and be isolated from other goods when stored, so as to avoid any damage.
- The solar panels of this product should be considered as fragile. There should never be more than 4 layers of boxes when stacked. To avoid damage to the panels, make sure no heavy pressure is applied to the boxes.
- Please store the product in temperature between 0°C to 45°C.
- If stored for a long period, the product should be recharged every 3 months. Please only use the special charger (purchased from manufacturer) to avoid damage to the battery or device. The charging method is first fully charge the battery, then discharge it, and finally charge the battery to 50% power.

Product Recycling

- This product is made from recyclable, high-performance materials. All materials are compliant to the ROHS standard. Do not dispose of this product with other household waste.
- Please check your local regulations on collection and disposal of electronic items. Proper disposal of used product helps prevent negative impacts on the environment.

User Manual of PBOX IR Remote Control

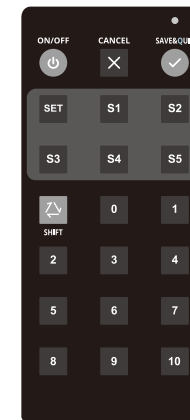
Infrared Remote Control Area

You can manually control the solar street light within a range of 0-9 meters forward and 60 degrees below the light fixture using a handheld remote control device.

General Operations

(These operations are invalid when setting the light's working mode.)

To switch ON/OFF the light.	
To enter into Transportation Mode.	
To enter into OFF mode. (In Transportation Mode)	



IR Remote Control

Working Modes Operating Instructions

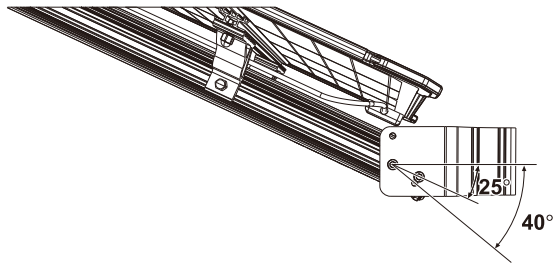
Mode 1	Factory program 100% if detection and 25% if no detection	
Mode 2	100% if detection and 0% if no detection	
Mode 3	2 fix hours 100% and 100% if detection and 20% if no detect	
Mode 4	2 fix hours 100% and 100% if detection and 0% if no detect	
Mode 5	3 fix hours 100% and 100% if detection and 20% if no detect	
Mode 6	3 fix hours 100% and 100% if detection and 0% if no detect	
Mode 7	3 fix hours 100% and stop 0%	
Mode 8	4 fix hours 100% and 100% if detection and 20% if no detect	
Mode 9	4 fix hours 100% and 100% if detection and 0% if no detect	
Mode 10	4 fix hours 100% and stop 0%	

! Notes

- Every time when pressing the button, the indicator light of the remote control unit flashes once. From this the user can directly know whether the button works properly and whether the battery in the remote control has electricity. Please use CR2025 3V batteries for the remote control.
- Every time when the light controller receives an effective command from the remote control, the light/LED flashes once or more times.

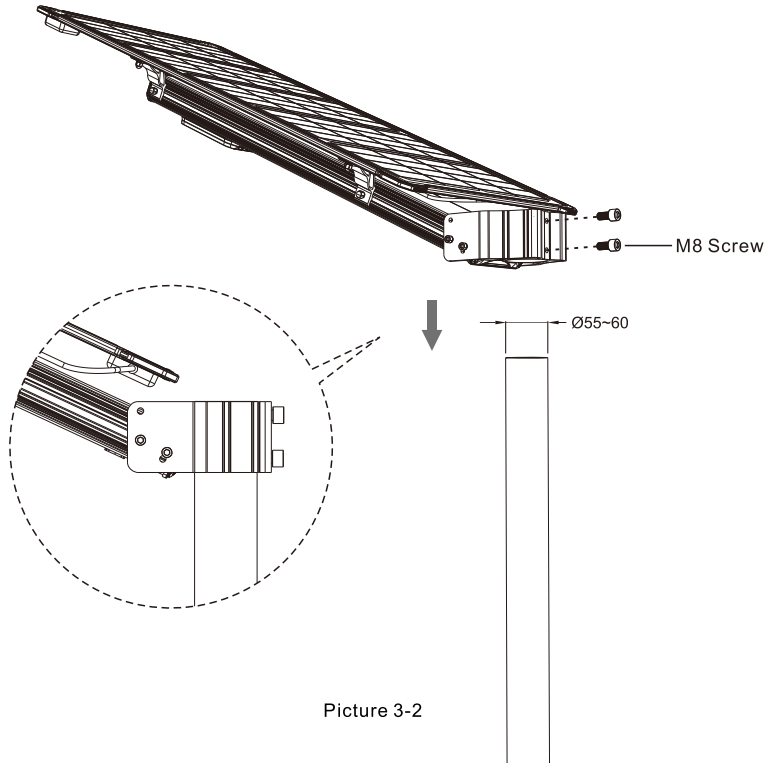
X4 All In One Installation

- 1 Corresponding to the hole position of 25" or 40", move the nut strip in the support frame groove to align it with the hole on the bracket, and then use flat pad, spring pads and screws to fix the bracket. (see picture 3-1)



Picture 3-1

- 2 Put the LED solar street light bracket into the pole and fixed with screws to ensure that the LED street light is firmly installed on the pole. Then the installation is completed. (If using an electric wrench, set the torque as 14N·m)(see picture 3-2)



Picture 3-2

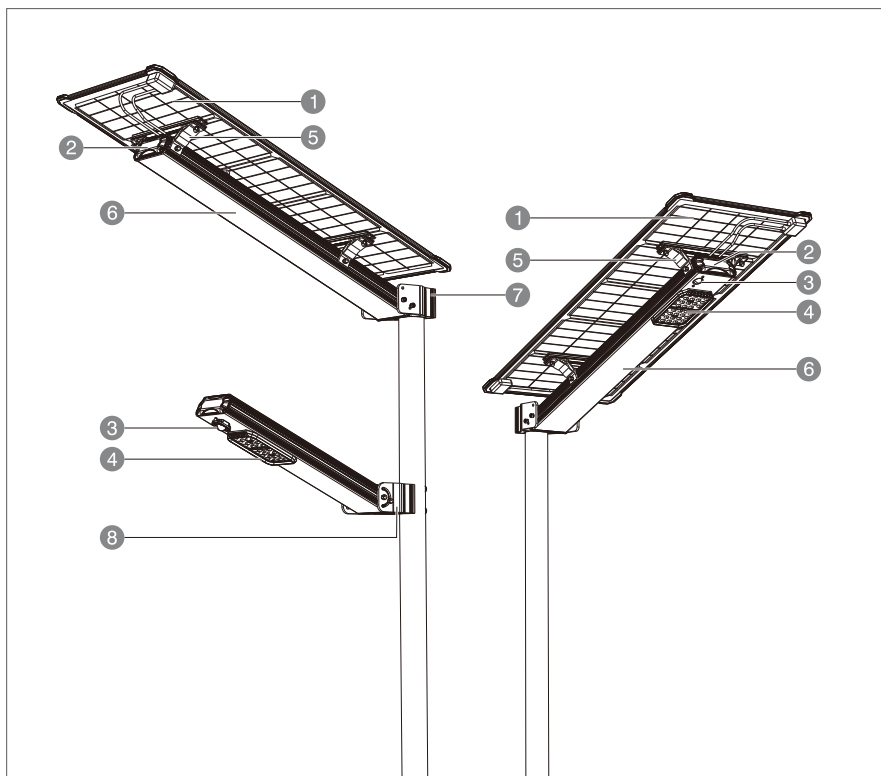
Product Maintenance

- To ensure effective solar radiation absorbing, clean the surface of the solar panels regularly with water and a soft cloth. Don't use highly soluble chemicals or abrasives containing aminobenzene.
- This solar street light operates on a low DC voltage. Unless it's customized, do not connect any components or ports to any AC power supply or higher rated DC voltage system.
- The light sources contained in these luminaries shall only be replaced by the manufacturer or his service agent or any equivalently qualified persons.
- Using any third party components to replace the original ones without authorization is forbidden. The product will lose warranty if the users disassemble the products without the manufacturer's prior authorization.
- To order replacement parts or to have them fitted, please visit www.pboxlighting.com or contact your local distributor.



Part Description

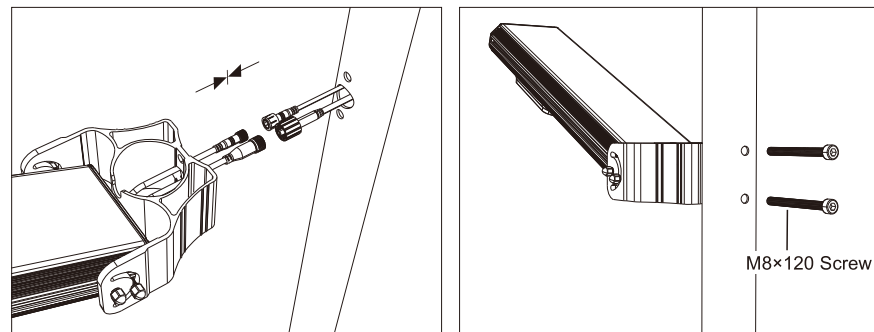
Part Description



No.	Name	Brief Function
1	Solar Panel	Absorbs and converts solar energy into electricity.
2	Infrared Remote Control Area	Receive remote control information.
3	Motion Sensor	Detects human movement.
4	LED Light	Lights the area.
5	Bracket of Solar Engine	Support the solar panel.
6	Control Unit	Built-in batteries and controller, as a support frame.
7	Bracket	For installation.
8	Light Bracket	For installation.

U-shaped Bracket Street Light Installation (Method 1)

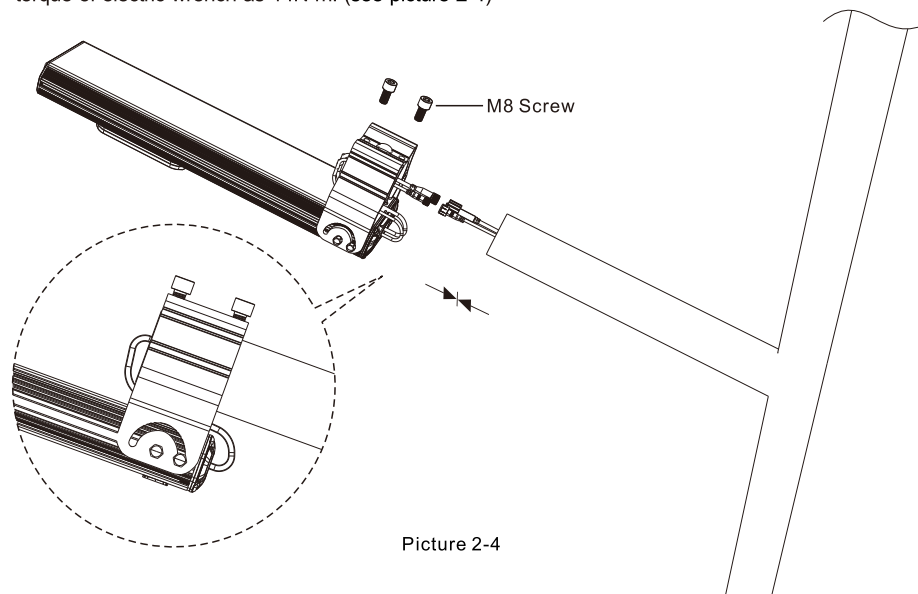
Connect the waterproof wire to the LED street light and screw down the connectors in turn; Use the M8×120 screws through the hole on the pole, and screw down the U-shaped bracket of LED street light. Set the torque of electric wrench as 14N·m. (see picture 2-3)



Picture 2-3

U-shaped Bracket Street Light Installation (Method 2)

Connect the waterproof wire to the LED street light and screw down the connectors in turn; Fit LED street light onto the lamp arm and fasten it with two M8 screws by using wrench. Set the torque of electric wrench as 14N·m. (see picture 2-4)

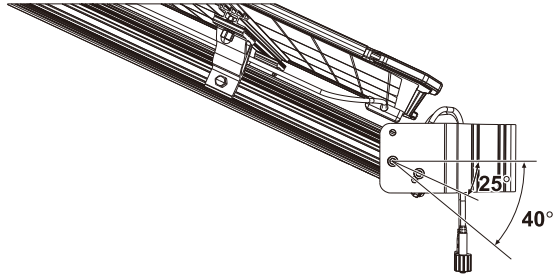


Picture 2-4

X4 Split Installation

Bracket of Solar Engine

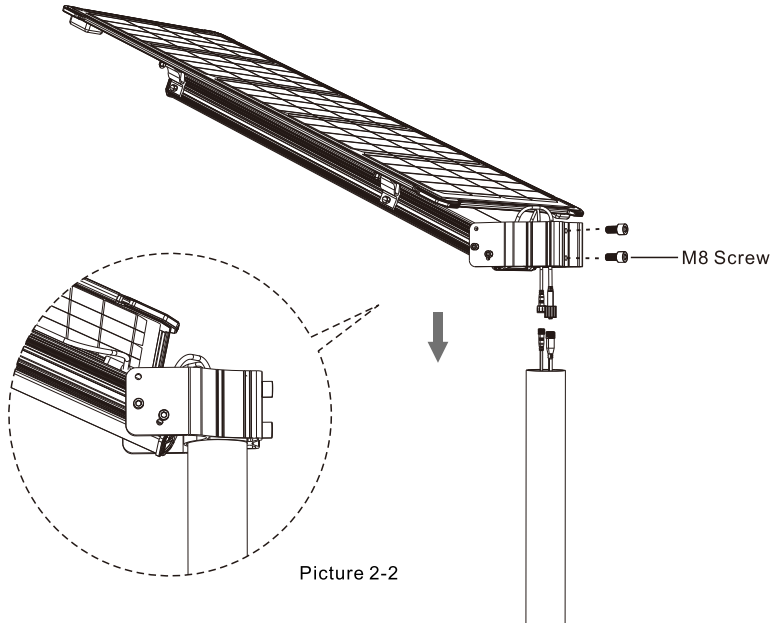
Corresponding to the hole position of 25" or 40", move the nut strip in the support frame groove to align it with the hole on the bracket, and then use flat pad, spring pads and screws to fix the bracket. (see picture 2-1)



Picture 2-1


Install Solar Engine

Connect the waterproof wires to the LED light wire and motion sensor wire, and screw down the connectors in turn. Insert the solar engine into the pole, and fasten it with M8 screws by wrench to ensure the stability of solar engine. Set the torque of electric wrench as 14N·m. (see picture 2-2)

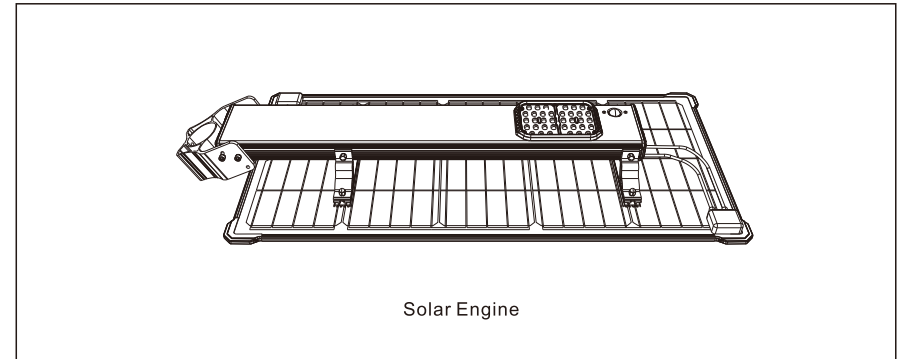


Picture 2-2

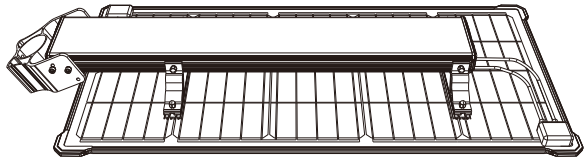
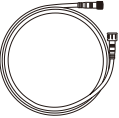
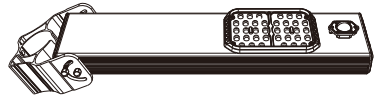

Packing List

 Check if all the components are complete before installation, the components and quantity of each set as follows:

All In One Type



Split Type

 <p>Solar Engine</p>	 <p>2m Three Cores Extended Cable 1pc</p>
 <p>Luminaire</p>	 <p>M8x120 Screws 2pcs 2m DC Extended Cable 1pc</p>

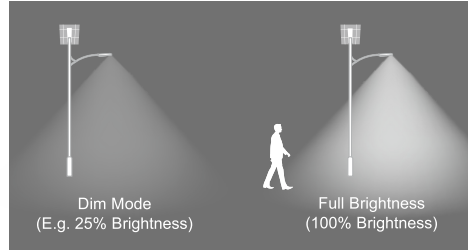
Before Installation

Product Activation

* **In the daytime:** When connecting the LED street light to the solar engine, the street light lights up for 20 seconds, and then turns off. It means the solar street light has been activated automatically.

Working Mode Description

The product default setting controls the light through photo sensing of the solar panel, and the light will turn on automatically when it's dark, and turn off automatically when it's bright. The street light will go into the dim mode when no one around at night and it will full brightness when someone around.



Lamp Pole Installation Requirements

1 Lamp Pole Installation Requirements of Solar Engine.

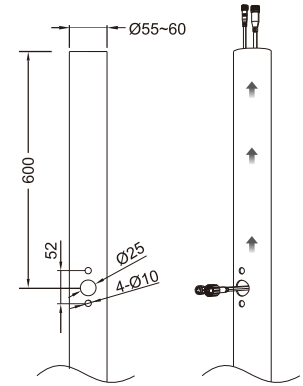
Select the top diameter range of the lamp pole from 55 to 60mm.

2 Lamp Pole Installation Requirements of Split Type Street Light with U-shaped Bracket.

a. Straight Rod Mounting.

If selecting straight pole for installation, 5 installation holes need to be opened in advance at about 600mm from the top of the pole according to picture 2 shows.

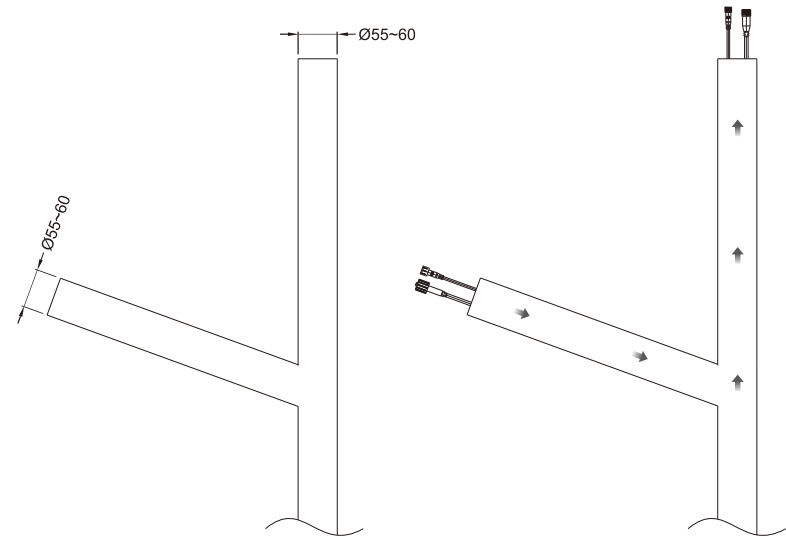
Push the waterproof wires through the hole and the top of lamp pole. (see picture 1-1)



Picture 1-1

b. Arm mounting.

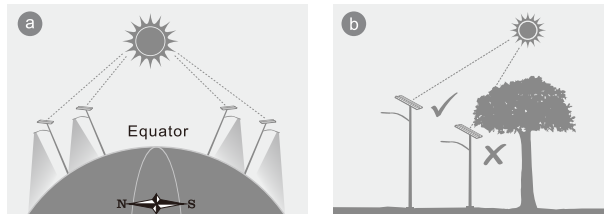
It is advice that selecting a lamp arm to install for split type solar street light with U-shaped bracket. The diameter of the lamp arm can not beyond 60mm, as the Picture 1-2 shows.



Picture 1-2

Installation Direction of Solar Panel

- Please select the appropriate product according to the installation site's sunlight intensity and required operating time. If you are in the northern hemisphere, face the solar panels towards the south as far as possible when installing the solar street light; if you are in the southern hemisphere, face the solar panels towards the north.
- For maximum operation efficiency of the solar panels, make sure the sunlight is not blocked by buildings or trees.



Installation Altitude and Distance Parameters

Before installing, please according to the height and distance (between the street lights) restrictions by each respective product type. Consult our product specialists for special lighting requirements.

Power	Bat Wing Light Source	
	Installation Height	Installation Distance
15W	4~6m	15~25m
20W	4~6m	15~25m
30W	5~8m	20~30m
50W	7~10m	25~35m
80W	10~12m	30~40m